

JOCHELSON, THE KORYAK.

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The Maritime Koryak consider one dried dog-salmon and a half per man, with some seal-oil, sufficient for one day when fish is consumed exclusively. This is equivalent to about three or four pounds of fish.¹ A single thong-seal is sufficient for a week for a family of six or seven. With the Reindeer Koryak a single reindeer will do for three days for a family of the same size. In the village of Kamenskoye, where I collected data concerning the number of seals stored by the inhabitants for winter, I also obtained information concerning the winter supplies of sun-dried dog-salmon. For 18 families, numbering in all 100 souls, there were laid in for the winter 34,000 sun-dried dog-salmon; i. e., 340 fish per head. On the basis of the calculations made above, this would suffice for 226 days, or seven months and a half. In the preceding chapter I stated² that in 1901 the inhabitants of Kamenskoye had for the winter an average supply of 14.3 thong-seals per family, which would furnish food for a little over two months and a half. Thus the inhabitants of Kamenskoye had an average food-supply for ten months. The time during which fishing and sea-hunting cannot be counted on at all, or very little, is nine months; consequently that year the inhabitants of Kamenskoye had a little more than they needed. The surplus must be accounted for as food for visitors. The meat of sea-mammals, and the fish which the Maritime Koryak give to the Reindeer Koryak, must not be taken into account, as the former receive reindeer-meat in exchange for the latter.

I have said before that for a family of six or seven a single reindeer is counted sufficient for three days, ten reindeer for a month, and ninety for nine months. I do not take into consideration the three summer months, as the reindeer-breeders rarely kill full-grown reindeer for food in summer. Many Reindeer Koryak in summer live principally on fish; the meat of perished calves or of full-grown deer fallen from disease; on berries, edible roots, and herbs. If the total number of Reindeer Koryak (3748) is divided by 6, we obtain 624 families, for which about 56,000 reindeer would be required, if all the Reindeer Koryak were to live for nine months on meat of full-grown reindeer exclusively. This number is evidently somewhat above the actual number of reindeer killed. Thus, in 1899, 32,566 reindeer-skins were exported. Although over half of this number (about 18,000) were skins of calves one month old,³ a number at least equal to that of the exported skins must have been required for the clothes and tents of the Koryak themselves, and for those given in barter to the Maritime Koryak and Russian settlers. Furthermore, a small part of the skins exported through Gishiga come from the Anadyr district; but this amount is fully compensated, if not exceeded, by the skins of Koryak reindeer that are exported through the

¹ The weight of a fresh dog-salmon, including head, bones, and viscera, is from five to fourteen Russian pounds; the average weight is eight Russian pounds, or a little over seven English pounds.

² See p. 549

³ See Chapter XII, Trade.

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438 Kamchadal ports Tigil and Petropavlovsk, and that are used for clothing by the Kamchadal and the Russians in Kamchatka.

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185 MANAGEMENT OF FOOD-SUPPLIES. — I have had occasion to observe many cases of lack of foresight in northern Siberia. Thus the Yukaghir, in the early part of winter, squander their supplies of fish, and regale their Yakut visitors liberally, while towards spring they go hungry. The lack of restraint or foresight also hinders the growth of the Tungus herds. A poor Tungus will kill his riding-reindeer for meat more readily than will a wealthy Koryak kill one that has not been broken. On this abstinence is based the increase of the Koryak herds. A herd-owner, like the simple herdsman, while tending the herd far from home, will feed on carrion or will go hungry rather than kill a reindeer for himself. Some travellers have complained of the stinginess of the Reindeer Koryak and of their reluctance to kill reindeer for their guests, to whom they serve the meat of animals fallen from disease. 556 Notwithstanding all his abstemiousness, the owner of a herd, as I have said above, may kill reindeer for actually starving people, and at times becomes recklessly extravagant in order to show off his wealth.

The Maritime Koryak consume the provisions laid up in their storehouses economically, and hide them from visitors, lest they might ask for some. In the village Kamenskoye, where the main supply of fish consists of dog-salmon, I was told that for years at a time full storehouses of dried uyo'k (*Salmo socialis*) are kept for the contingency of a poor catch of dog-salmon.

731 Thanks to such foresight, and to the relative abundance of fish and sea-mammals in Koryak waters, actual famines are very rare among the Maritime Koryak. However, a great famine occurred in the late seventies along the coasts of Penshina Bay. I did not succeed in learning the exact date. During that summer almost no fish entered the rivers. As a result of this, there were almost no sea-mammals, either, near the coast. Therefore there was not enough food for the winter; and in spring a genuine famine set in, especially when the snow began to melt, and communication with the Reindeer Koryak and the Russians became impossible. I was told that during that famine nearly half of the population of the Itkana villages and a part of the Paren people died. Since then no such disastrous summer has recurred, although toward spring food has been scanty every year.

431 Thanks to their herds, the Reindeer Koryak are secure against such famine. Poor people usually keep near the herd of a wealthy kinsman, or follow him and avail themselves of his gifts when in need. Murrain, which frequently appears among the reindeer, naturally undermines the prosperity of the herd-owners; but during the epidemic there can be no famine, as the Koryak eat the fallen reindeer.

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subjects. They do not in any way differ from ordinary drawings, specimens of which are reproduced here. They have the same defects, and are also realistic. Somewhat fanciful is a drawing of the spider-crab, representing the marine deity.¹ The drawings of circles around the heads of the Supreme Deity, his wife and son,² and the beams radiating from the heads of the first two, seem to be an imitation of the circles and rays representing the halos around the heads in orthodox icons, which the artist had no doubt seen in Russian houses on more than one occasion on his trips to Gishiginsk.

WRITING. — Although I found no pictographic letters on bark among the Koryak, — such as are found among the Yukaghir, and which serve with them as a means of communication between people at a distance, — yet the memoranda and commercial notes used by the Koryak traders are curious specimens of a primitive writing of a somewhat pictographic nature. The Koryak traders in Kamenskoye and in northern Kamchatka purchase from Russian merchants pencils and paper or memorandum-books, in which they score their purchases and sales, denoting the articles by means of realistic or conventionalized reproductions.

Figs. 248-250 represent three specimens of such records of Qaci'lqut, a Koryak trader of Kamenskoye. Fig. 248 represents a record in his memorandum-book of goods received at a fair from the clerk of a Gishiginsk merchant with whom he keeps an open account. Fig. 249 is a copy of a letter containing a list of furs forwarded by Qaci'lqut to the merchant. Fig. 250 represents a list of goods which he furnished me for our ethnographical collection.

The system of records used by Qaci'lqut consists of a representation of the articles, in real or conventionalized form, on one side of a long line, and of special numeral signs on the other. Qaci'lqut, however, does not adhere to one particular side in representing the articles or their number. The bill which he presented to me (Fig. 250) differs somewhat from his ordinary notes. His system of sign-figures puzzled me somewhat at first. To my question as to who invented them, Qaci'lqut replied, "I know myself." Later on I found in the archives of the natives on the Kolyma River receipts of Russian officials of the eighteenth and the beginning of the nineteenth centuries. The receipts testified as to the payment of tribute in furs by the native chiefs, and the number of fur skins or rubles received as tax was indicated by Russian letters and also by means of the system used by Qaci'lqut, evidently for the benefit of the illiterate natives. It consisted of a simplification of the Roman system of numeration, being reduced to three signs only,³ — I (one), X (ten), and X enclosed in a circle (one hundred), as in Fig. 249, 4. Such receipts were found also in the archives by Mr. Bogoras. In one, dated 1823, given

¹ See Part I, Fig. 1, p. 20.

² Ibid., Figs. 40, 41, p. 93.

³ It is of interest to remember that the ancient Egyptian numeration consisted of only four signs; namely, for 1, 10, 100, and 1000. In composing large numbers, they were used in the same manner as Qaci'lqut uses his three signs, — by means of repetition (see Tylor, *Anthropology*, London, 1904, p. 343).

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to the elder of the Omotski Yukaghir Clan by the chief of the Kolyma district, the following signs were used: X (one ruble), □ (ten rubles), ⊕ (a hundred rubles), and I (kopeks). The use of the three signs by Qaci'lqut can be explained as an imitation of the old Russian signs by Qaci'lqut's ancestors. At present Russian officials do not use these signs in their receipts. Following is a more detailed explanation of the use of the three signs, based on the statements of Qaci'lqut himself.

Record from Memorandum-Book (Fig. 248).

1. One iron pot. The pot is represented by a circle.
2. Two tea-kettles. The tea-kettle is represented by a circle with a beak, the latter representing the spout. A little arc on the top stands for the handle.
3. Twenty-five pounds and a half of leaf-tobacco. The tobacco is represented by a bunch of leaves, and the fraction one-half is indicated by a dot. This arithmetical sign I have not found in the receipts of the tax-gatherers of the eighteenth century. It is Qaci'lqut's own invention.
4. One large knife. The knife is represented by a long vertical line.
5. Two small belt-knives. The knife is represented by a vertical line smaller than the preceding one. In this memorandum, Qaci'lqut has departed somewhat from his system by denoting the number 2 twice. — once graphically, and again by numerical signs.
6. Twenty pounds of wheat-flour. The flour is indicated by a black ring, which stands for a full bag of flour.
7. Six papers of needles. The paper is indicated by a rectangle, which stands for a paper filled with needles.
8. Fifty large needles. The place for indicating the object is left blank, which is equivalent to "ditto;" but under the numeral signs there is a long horizontal line, which signifies that the needles are of a larger size.
9. Calico prints for one shirt. The calico is represented by a horizontal line, which stands for a strip of cloth cut off from a bolt of goods.
10. One woollen shawl. The shawl is represented by a rectangle with fringe on the sides.
11. One tablecloth. The tablecloth is indicated in the same way as the shawl.
12. One scarf. The scarf is represented by a horizontal line with a fringe at the end.
13. Three arshins¹ of red cloth for a shirt.² The cloth, like the calico (No. 9), is represented by a horizontal but longer line. The color of the cloth is left to be implied, since the outside shirt is made by rich Koryak only of red cloth.
14. Two plates. The plate is indicated by a ring, but of a smaller size than that for the pot (see No. 1).



Fig. 248. Koryak Account.

¹ An arshin is equivalent to two feet and a third.

² See p. 593.

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15. Three woollen shawls (see N°. 10).
16. Four strings of beads. The string of beads is represented by a thread string with beads, with the ends tied together; but the beads in the drawing have a rather strange form.
17. Two brass chains for women's hair-dressing. It is interesting that the links are represented by rings which do not pass through one another, but are joined by a line.
18. Nine little bells. The bell is represented by a ring with a little tag above, which stands for the handle of the bell.
19. Three iron dog-chains. The chain is represented as in No. 17, only of a larger size.
20. One belt.
21. Three large belts. The belt is represented by a horizontal line like the piece of calico (No. 9) or of cloth (No. 13).
22. Twenty bricks of tea. The brick of tea is indicated by a black rectangle.
23. Six cups and saucers. Of two concentric circles, the one inside represents the cup, and the outside the saucer.
24. Sixteen buttons. Strangely, the buttons are represented, not by round dots, but by dashes. I suppose that the eye of the writer of the bill did not distinguish clearly their difference.
25. One axe. The axe is represented rather conventionally by a sign resembling the letter P.
26. Three combs. The comb is indicated by a rhomboidal figure, with dashes under the base representing the teeth.
27. Eleven pounds of sugar. A little figure, which is neither a square nor a ring, represents a sawed piece of sugar.
28. One frying-pan. The frying-pan is indicated by a ring and a dash, the latter representing the handle.

Copy of a Letter (Fig. 249).

1. Five sables. Why a sable is represented only by its hind-legs is not clear.
2. Twenty spring fawn-skins. The drawing represents a skin taken from a new-born fawn. The side-lines represent the head and the feet.
3. Five fox-skins. The middle line represents the skin, and the side-lines the four legs.
4. A hundred and fifty reindeer-fawn skins. The whole reindeer-skin is represented by a rectangular figure, and the skin from the legs by four dashes. The difference in the representation of the reindeer-skin and the fox-skin is due to the fact that the fox-skin is taken off entire, and is round; while the skin of the reindeer, before being taken off, is first cut, beginning at the lower tip, the entire length of the animal. The reindeer-skin is therefore shown opened.
5. Five bear-skins. The bear-skin is taken off in the same manner as the skin of a reindeer, and it is therefore shown opened out. The paws are not indicated, being imma-



Fig. 249. Koryak Account.

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terial; but a more characteristic feature of that animal is indicated on the skin, namely, thick black hair.

6. Ten wolf-skins. The wolf-skin is taken off in the same manner as the reindeer-skin, and its representation differs from that of the reindeer only by the addition of a long tail.
7. Two wolverene-skins. The skin of the wolverene is taken off like that of the fox. Accidentally it is represented as smaller in size than the fox. Wolverenes in general are larger than foxes; but the characteristic feature of that animal — a large body and short legs — is brought out.
8. Three skins of polar foxes. The skin of the polar fox is represented in the same way as that of the other fox (No. 3).
9. Ten skins of polar foxes for thirty rubles. This memorandum, with a double meaning, — since it indicates both the number of skins and their cost, — is put by Qač'i'lqut in parentheses (two lines). Of the number-signs, the former (ten) indicates the number of skins, and the latter (thirty) their value. The repetition of the fox-skin signifies that both numbers relate to the same article.
10. Three coats of reindeer-skin. The illustration of the coat differs from that of the reindeer-skin (No. 4) by having only two side-lines for sleeves, and also by indicating the hood of the coat in the upper part.
11. Five pairs of fur boots. Only one boot is shown.

List of Goods (Fig. 250).

1. A boy's summer and winter suit and travelling-overcoat (separately). The suits are drawn, like the coats, with the addition of boots (under the line). In Fig. 250 Qač'i'lqut did not use the numeral sign in cases of single articles.
2. A man's winter and summer suit and overcoat. Drawn as in No. 1.
3. A girl's summer and winter combination-garment and two overcoats. In the drawing of the suit, the woman's wide trousers are indicated.
4. A woman's summer and winter suit and two overcoats. Made as in No. 3, only of a larger size. The lines between the first four numbers have no significance, and merely serve to separate one from the other.
5. One combination-dress of a child. The peculiarity about this dress is that it has a flap sewed on behind in the shape of a tail, which is placed between the legs.
6. Two collars for reindeer-harness.
7. Two reindeer bridles and reins. The drawing of the bridle differs from that of the collar in having inside the ring an indication of the hitching-strap; and on the side, of the bone piece.
- 8, 9. One reindeer-lasso, and a coil of seal-skin thong.
- 10-12. A pair of boots, two reindeer-skins, one whip.

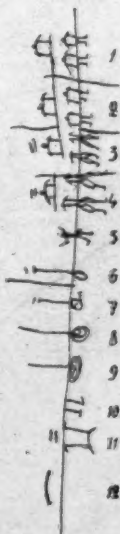


Fig. 250 Koryak Account.

After an examination of Qač'i'lqut's writing, the interesting conclusion may be drawn that the conventional representation of animals and other objects of nature is not always a perversion of the original realistic representation. Conventionalism in this case constitutes the primary phase. The primary conventionalization of natural objects may be the result of inability

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In summer,

during the fish-runs, all reindeer-breeding Alyutortsy migrated to the mouths of rivers, where they lived with their sedentary kinsmen and worked with them, preparing stocks of fish for the winter. The reindeer herds remained at this time in the care of herdsmen—the boys of the family. This second type of Koryak reindeer-breeding originated much later than the first.

The hunting of sea animals (various species of seal and white whale) was the principal occupation of the northern sedentary Koryaks, who lived on the coast of Penzhina Bay: Kamentsy, Parentsy, Itkantsy. It also played an important role among the rest of the sedentary Koryaks: the Kereks, Apukinty, Palantsy, Karaginty, and sedentary Alyutortsy.

Sea hunting was done during two seasons: spring and fall. The spring season began in mid-March and ended in the latter part of June.

The hunters, armed with rifles and spears, drove out in parties of 78 men, or more, by dogsleds on the sea ice, 5 to 10 kilometers from shore. The seals, which climbed out on the ice, were shot with rifles. The kill was loaded on the sled, and the hunters returned to their village either the same or the following day, after a night on the ice. In a party of 78 men, 2 usually had guns, while the rest brought in the catch, loaded it on the sled and transported it; some were simply onlookers. In May, when open water appeared among the ice floes, sea hunting was done in baydars (skin boats).

The fall season began in mid-September and ended in the latter half of November. The fall hunting was also done in baydars and barkasy (flat-bottomed plank boats). The animals were caught with nets of sealskin strips.

Long ago, the Koryaks hunted whales. According to legends and literary sources of the 18th century, the hunt was conducted with a huge net, woven of thick strips of leather. Large stones were used as sinkers. The net was attached to coastal cliffs and crags. Dozens of baydars, each with more than 10 hunters, armed with harpoons, sailed out into the sea. The hunters drove the whale into the net, in which it became entangled. The heavy sinkers made it impossible for the whale to swim out into the sea with the net. The hunters showered him with spears. Wounded and exhausted, the whale died, and the hunters joined forces to pull him ashore. The Alyutortsy also used joined boats instead of baydars in hunting whales.

The skins of sea animals were used for straps and boot-soles. The meat and blubber were eaten and stocked. The blubber also provided light. To the Kamentsy, Parentsy and Itkantsy, the products of sea hunting—blubber, skins, and sometimes meat as well—served as the principal media of barter with the reindeer-breeders, from whom they obtained deerskins and meat.

Fishing had long been the main occupation of the eastern sedentary Koryaks of the Bering Sea coast: the Karaginty, the sedentary Alyutortsy and the Apukinty. Fishing was also important to the western sedentary Koryaks—the Palantsy, and the northern ones—the Kereks—and somewhat less for the settled Koryaks on the Penzhina—Kamentsy, Parentsy and Itkantsy. Fishing was done throughout the summer and early fall season—from mid-June to the middle of September.

The most widespread method of fishing was by means of barriers. The river was fenced off from either bank with two barriers of stakes and twigs. At the place where they met, the fishermen attached under the water a chiruch (a sack-net) or a "muzzle," made of strips of wood, laths or twigs. Such barriers were set in shallow places, where the fishermen could work during shoal runs without boats or kungasy (sailboats). The "muzzles" were emptied several times a day. During the heavy runs of fish (Siberian salmon and other migrating salmon species), the Koryaks moved to the mouths of rivers. Here groups of households combined into cooperatives and fished

K A M T S C H A T K A, &c. 225

greatest ceremony, and bear every affront. It was never heard ⁶¹⁹
 that the settled *Koreki* did the least injury to any of the ¹⁸²
 wanderers; and this is so firmly believed, that our tax-gatherers ³⁷⁸
 think themselves entirely safe, when they converse with those ⁴³⁸
 who live in huts, if they are guarded by one of the rein-
 deer *Koreki*: which may appear very strange, considering that
 the settled *Koreki* are much their superiors in strength; and
 it can only be attributed to that general respect which poor
 people pay to the rich: for the poverty of the settled *Ko-*
reki is so great, that they depend upon the others in a great
 measure for their cloathing. The rein-deer *Koreki* call the
 others their slaves, and treat them accordingly; but they behave ⁶⁰⁹
 very differently to the *Tchukotskoi*, who are so terrible to them,
 that fifty of the rein-deer *Koreki* dare not stand against twenty
 of these; and if it was not for the protection of the Cossacks
 of *Anadir*, the *Tchukotskoi* would have rooted them out by this
 time. As every nation has something commendable, so the *Koreki* ¹⁵⁷
 are more honest and industrious than the *Kamtschadales*, and seem
 to have a greater sense of shame.

It is difficult to form an exact account of the numbers and ⁵¹¹
 different families of the *Koreki*, but it is thought that all together ³⁴²
 they are more numerous than the *Kamtschadales*. They live in ³⁷²
 such places as abound with moss for their rein-deer, without re-
 garding the scarcity of wood or water: in the winter time they ³¹²
 can use snow for water, and for firing moss or grass, of which
 they have plenty every where. Their manner of living, espe-
 cially in the winter time, is still more disagreeable than that of
 the *Kamtschadales*: for being frequently obliged to change their
 habitations, the huts which they come into are all frozen; and
 when they begin to thaw them by the fires, which are usually
 made of green shrubs or grass, there arises a smoke, so per-
 nicious to the eyes, that it is enough to blind a person entirely
 in one day.

G g

I. E. e.; the Reindeer ^{G g} Koryak -- Analyst Their